

What is claimed is:

1. A method for temporarily maintaining a compressible foam element in a compressed state against an outer surface of a downhole sand control device, comprising the steps of:

(a) installing a production assembly downhole within a casing string or well bore, the production assembly comprising a degradable wrap securely fitted around the compressible foam element so as to cause the compressible foam element to assume a compressed configuration against the downhole sand control device; and

(b) degrading the degradable downhole wrap thereby causing the compressible foam element to expand into contact with the casing string or well bore.

2. The method according to claim 1, further comprising the step of isolating a section of the production assembly.

3. The method according to claim 2, wherein the isolating step comprises the steps of installing an isolation pipe having a top end and a bottom end inside the production assembly and sealing the isolation pipe to the production assembly.

4. The method according to claim 3, wherein the step of installing the isolation pipe inside the production assembly is performed after the step of installing the production assembly downhole in the casing string or well bore and production has been flowing for a period of time.

5. The method according to claim 3, wherein a coil tubing is employed to install the isolation pipe inside of the production assembly and to seal the top and bottom ends of the isolation pipe to the production assembly.

6. The method according to claim 1, wherein the degradable wrap is biodegradable and gradually degrades by thermal hydrolysis in the presence of the aqueous solution.

7. The method according to claim 6, wherein the biodegradable wrap is in the form of a string or tape, which is helically wound around the compressible foam element.

8. The method according to claim 7, wherein the biodegradable wrap is formed into a tubular sheath.

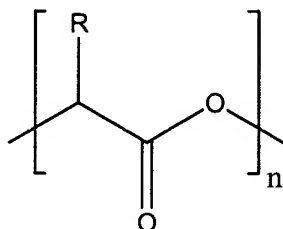
9. The method according to claim 8, wherein the biodegradable tubular sheath is formed of a woven cloth.

10. The method according to claim 1, wherein the degradable wrap comprises a degradable polymer selected from the group consisting of homopolymers, random, block, graft, and star- and hyper- branched aliphatic polyesters.

11. The method according to claim 1, wherein the degradable wrap comprises a degradable polymer selected from the group consisting of polysaccharides; chitins; chitosans;

proteins; aliphatic polyesters; poly(lactides); poly(glycolides); poly(ϵ -caprolactones); poly(hydroxybutyrates); poly(anhydrides); aliphatic polycarbonates; poly(orthoesters); poly(amino acids); poly(ethylene oxides); and polyphosphazenes.

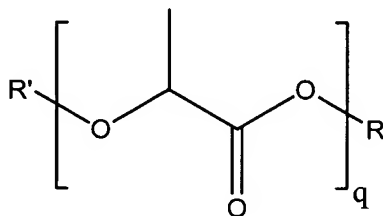
12. The method according to 11, wherein the degradable wrap comprises an aliphatic polyester having the general formula of repeating units shown below:



where n is an integer between 75 and 10,000 and R is selected from the group consisting of hydrogen, alkyl, aryl, alkylaryl, acetyl, heteroatoms, and mixtures thereof.

13. The method according to claim 11, wherein the degradable wrap further comprises a plasticizer.

14. The method according to claim 13, wherein the plasticizer comprises a derivative of oligomeric lactic acid, selected from the group defined by the formula:



where R is a hydrogen, alkyl, aryl, alkylaryl, acetyl, heteroatom, or a mixture thereof and R is saturated, where R' is a hydrogen, alkyl, aryl, alkylaryl, acetyl, heteroatom, or a mixture thereof

and R' is saturated, where R and R' cannot both be hydrogen, where q is an integer and $2 \leq q \leq 75$; and mixtures thereof.

15. The method according to claim 1, wherein the degradable wrap is permeable enabling a production fluid to pass through the compressible foam element and the sand control device.

16. A production assembly, comprising:
a base pipe;
a sand control device incorporated within, or mounted to, the base pipe;
a compressible foam element mounted to the sand control device; and
a degradable wrap securely fitted around the compressible foam element
so as to cause the compressible foam element to assume a compressed configuration.

17. The production assembly according to claim 16, wherein the degradable wrap is biodegradable and gradually degrades by thermal hydrolysis in the presence of an aqueous solution.

18. The production assembly according to claim 17, wherein the biodegradable wrap is in the form of a string or tape, which is helically wound around the compressible foam.

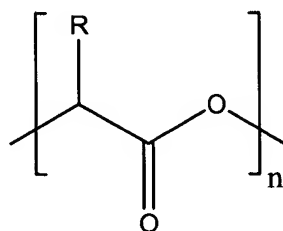
19. The production assembly according to claim 17, wherein the biodegradable wrap is formed into a tubular sheath.

20. The production assembly according to claim 19, wherein the biodegradable tubular sheath is formed of a woven cloth.

21. The production assembly according to claim 16, wherein the degradable wrap comprises a degradable polymer selected from the group consisting of homopolymers, random, block, graft, and star- and hyper- branched aliphatic polyesters.

22. The production assembly according to claim 16, wherein the degradable wrap comprises a degradable polymer selected from the group consisting of polysaccharides; chitins; chitosans; proteins; aliphatic polyesters; poly(lactides); poly(glycolides); poly(ϵ -caprolactones); poly(hydroxybutyrates); poly(anhydrides); aliphatic polycarbonates; poly(orthoesters); poly(amino acids); poly(ethylene oxides); and polyphosphazenes.

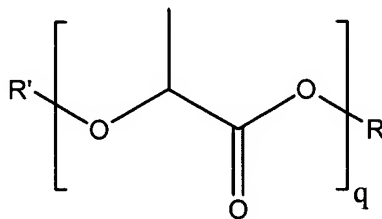
23. The production assembly according to claim 22, wherein the degradable wrap comprises an aliphatic polyester having the general formula of repeating units shown below:



where n is an integer between 75 and 10,000 and R is selected from the group consisting of hydrogen, alkyl, aryl, alkylaryl, acetyl, heteroatoms, and mixtures thereof.

24. The production assembly according to claim 22, wherein the degradable wrap further comprises a plasticizer.

25. The production assembly according to claim 24, wherein the plasticizer comprises a derivative of oligomeric lactic acid, selected from the group defined by the formula:



where R is a hydrogen, alkyl, aryl, alkylaryl, acetyl, heteroatom, or a mixture thereof and R is saturated, where R' is a hydrogen, alkyl, aryl, alkylaryl, acetyl, heteroatom, or a mixture thereof and R' is saturated, where R and R' cannot both be hydrogen, where q is an integer and $2 \leq q \leq 75$; and mixtures thereof.

26. The production assembly according to claim 16, wherein the degradable wrap is permeable enabling a production fluid to pass through the compressible foam element and the downhole sand control device.

27. An apparatus for temporarily maintaining a compressible foam element in a compressed state against an outer surface of a downhole sand control device, comprising a degradable wrap securely fitted around the compressible foam element.

28. The apparatus according to claim 27, wherein the degradable wrap is biodegradable and gradually degrades by thermal hydrolysis in the presence of an aqueous solution.

29. The apparatus according to claim 28, wherein the biodegradable wrap is in the form of a string or tape, which is helically wound around the compressible foam element.

30. The apparatus according to claim 28, wherein the biodegradable wrap is formed into a tubular sheath.

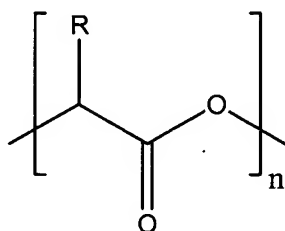
31. The apparatus according to claim 30, wherein the biodegradable tubular sheath is formed of a woven cloth.

32. The apparatus according to claim 27, wherein the degradable wrap comprises a degradable polymer selected from the group consisting of homopolymers, random, block, graft, and star- and hyper- branched aliphatic polyesters.

33. The apparatus according to claim 27, wherein the degradable wrap comprises a degradable polymer selected from the group consisting of polysaccharides; chitins;

chitosans; proteins; aliphatic polyesters; poly(lactides); poly(glycolides); poly(ϵ -caprolactones); poly(hydroxybutyrates); poly(anhydrides); aliphatic polycarbonates; poly(orthoesters); poly(amino acids); poly(ethylene oxides); and polyphosphazenes.

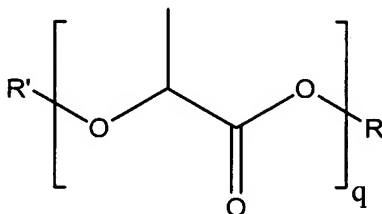
34. The apparatus according to claim 33, wherein the degradable wrap comprises an aliphatic polyester having the general formula of repeating units shown below:



where n is an integer between 75 and 10,000 and R is selected from the group consisting of hydrogen, alkyl, aryl, alkylaryl, acetyl, heteroatoms, and mixtures thereof.

35. The apparatus according to claim 33, wherein the degradable wrap further comprises a plasticizer.

36. The apparatus according to claim 35, wherein the plasticizer comprises a derivative of oligomeric lactic acid, selected from the group defined by the formula:



where R is a hydrogen, alkyl, aryl, alkylaryl, acetyl, heteroatom, or a mixture thereof and R is saturated, where R' is a hydrogen, alkyl, aryl, alkylaryl, acetyl, heteroatom, or a mixture thereof

and R' is saturated, where R and R' cannot both be hydrogen, where q is an integer and $2 \leq q \leq 75$; and mixtures thereof.

37. The apparatus according to claim 27, wherein the degradable wrap is permeable enabling a production fluid to pass through the compressible foam and the downhole sand control device.